# **Panasonic**

Before using your air-conditioner, please read this operating instructions carefully and keep it for future reference.



# OPERATING INSTRUCTIONS



Indoor CS-PV9CKE CS-PV12CKE

Outdoor CU-PV9CKE CU-PV12CKE

# HEAT-PUMP MODEL :-

Indoor CS-PW9CKE CS-PW12CKE

Outdoor CU-PW9CKE CU-PW12CKE

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Thank you for purchasing our Panasonic Air Conditioner.

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#### Note:

Before using your air conditioner, please read this operating instructions carefully and keep it for future reference.

# **FEATURES**

Automatic Operation

Sense indoor temperature to select the optimum mode.

(Refer page 5)

Removable Front Panel

For quick and easy cleaning. (washable)

(Refer page 7)

Random Restart Control

Restart the unit automatically after power failure.

(Refer page 8)

Environmental Friendly (For Refrigerant: R410A Model)
 Zero ozone depleting potential and low global
 warming potential by using R410A refrigerant.

# 🛕 Warning

- If the supply cord is damaged or needed to be replaced, it must be replaced by the manufacturer or its service agent or a similarly qualified person in order to avoid a hazard.
- 2) Remove power plug or disconnect from the main before servicing this appliance.
- Do not repair by yourself.
   In case of malfunction of this appliance, do not repair by yourself. Contact the sales dealer or service dealer for a repair.
- 4) Turn off the power (Isolation from main power supply). Pull off the power plug from the receptacle, or switch off the breaker, or switch off the power disconnecting mean to isolate the equipment from the main power supply in case of an emergency.



DISCONNECT THE MAIN PLUG FROM THE SUPPLY SOCKET WHEN NOT IN USE, WHERE SUPPLY CONNECTION IS VIA MAIN PLUG.

Airborne noise.

A-weighted sound pressure level of this appliance is less than 70dB (A) under the JIS C 9612 test conditions.

Maximum cooling operation

1 m from the unit

#### **IMPORTANT**

Replacement or installation of power plugs shall be performed by authorised/qualified personnel only.

The wires in this main lead are coloured in accordance with the following code:

Green and Yellow : Earth Blue : Neutral Brown : Live

"As the colours of the wires in the main lead of this appliance may not correspond with the coloured markings identifying the terminals in your plug, proceed as follow:

The wire which is coloured green and yellow must be connected to the terminal in the plug which is marked by the letter E or by safety earth symbol  $\oplus$  or coloured green or green and yellow.

The wire which is coloured blue must be connected to the terminal which is marked with letter N or coloured black.

The wire which is coloured brown must be connected to the terminal which is marked with letter L or coloured red."

# **SAFETY PRECAUTIONS**

Before operating, please read the following "Safety Precautions" carefully.

- To prevent personal injury, injury to others and property damage, the following instructions must be followed.
- Incorrect operation due to failure to follow instructions will cause harm or damage, the seriousness of which is classified as follow:



This sign warns of death or serious injury.

# **⚠** Caution

This sign warns of damage to property.

 The instructions to be followed are classified by the following symbols:



This symbol (with a white background) denotes an action that is PROHIBITED.







These symbols (with a black background) denote actions that are COMPULSORY.

#### ■ Installation Precautions

# **Marning**

 Do not install, remove and reinstall the unit by yourself.

Improper installation will cause leakage, electric shock or fire. Please engage an authorized dealer or specialist for the installation work.

# **A** Caution



This air conditioner must be earthed.

Improper grounding could cause electric shock.

Ensure that the drainage piping is connected properly. Otherwise, water will leak out.



Do not install the unit in a potentially explosive atmosphere.

Gas leak near the unit could cause fire.

# **■** Operation Precautions

# **Marning**

This sign warns of death or serious injury.



- Do not share outlet.
- Do not insert plug to operate the unit. Do not pull out plug to stop the unit.
- Do not operate with wet hands.
- Do not damage or modify the power cord.
- Do not insert finger or other objects into the indoor or outdoor units.
- Do not expose directly to cold air for a long period.



- Plug in properly.
- Use specified power cord.





 If abnormal condition (burnt smell, etc.) occurs, switch off and unplug the power supply.

# !\ Caution

This sign warns of injury.



- Do not pull the cord to disconnect the plug.
- Do not wash the unit with water.
- Do not use for other purposes such as preservation.
- Do not use any combustible equipment at airflow direction.
- Do not sit or place anything on the outdoor unit.



- Switch off the power supply before cleaning.
- Ventilate the room regularly.
- Pay attention as to whether the installation rack is damaged after long period of usage.

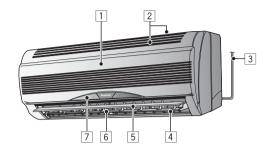


 Switch off the power supply if the unit is not used for a long period.



# NAME OF EACH PART

#### ■ Indoor Unit

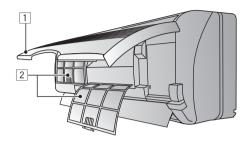


- 1 Front Panel
- 2 Air Intake Vent
- 3 Power Supply Cord
- 4 Air Outlet Vent
- 5 Vertical Airflow Direction Louver
- 6 Horizontal Airflow Direction Louver (manually adjusted)
- 7 Indicator Panel



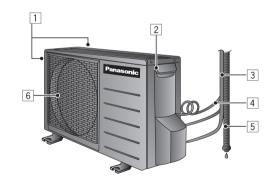
- 1 Auto Operation Button (when the front panel is opened)
- 2 Timer Mode Indicator ORANGE
- 3 Power Indicator GREEN

• Indoor Unit (when the front panel is opened)



- 1 Front Panel
- 2 Air Filters

# **■** Outdoor Unit



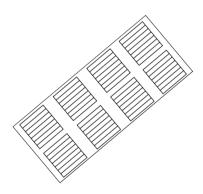
- 1 Air Intake Vents
- 2 Ground Terminal (Inside cover)
- 3 Piping
- 4 Connecting Cable
- 5 Drain Hose
- 6 Air Outlet Vents

#### ■ Accessories

Remote Control



Remote Control Indication Sticker

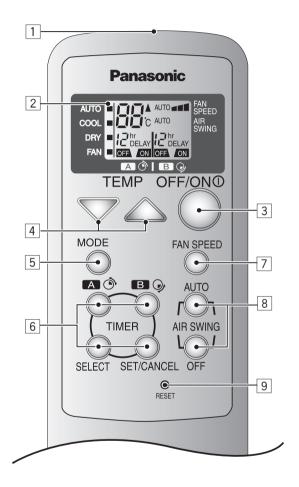


● Two R03 (AAA) dry-cell batteries or equivalent



# NAME OF EACH PART

#### **■** Remote Control



- Signal Transmitter
- 2 Operation Display
- 3 OFF/ON Button
- 4 Room Temperature Setting Button
- 5 Operation Mode Selection Button
- 6 Timer Set Button
- 7 Fan Speed Selection Button
- 8 Air Flow Direction Button
- Reset Point (Press with fine-tipped object to clear the memory)

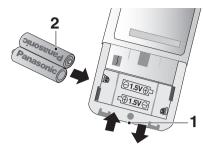
# Remote Control Signal.

- Make sure it is not obstructed.
- Maximum distance: 10 m.
- Signal received sound.
   One short beep or one long beep.

#### Notes for Remote Control.

- Do not throw or drop.
- Do not get it wet.
- Certain type of fluorescent lamps may affect signal reception. Consult your dealer.

#### How to Insert the Batteries



# 1 Slide down the remote control cover completely

# 2 Insert the batteries

Be sure the direction is correct.

#### About the batteries

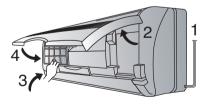
• Can be used for approximately one year.

#### Observe the following when replacing the batteries

- Replace with new batteries of the same type.
- Do not use rechargeable batteries (Ni-Cd).
- Remove the batteries if the unit is not going to be used for a long period.

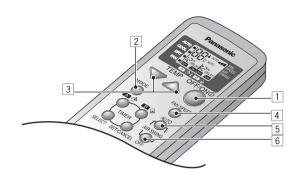
# PREPARATION BEFORE OPERATION

#### **■** Indoor Unit



- 1 Connect the power supply cord to an independent power supply
- 2 Open the front panel
- 3 Insert the air filters
- 4 Close the front panel

# **HOW TO OPERATE**



#### ■ To start the operation

- Press 1.
- POWER indicator (green) on the indoor unit will light up.
- To stop, press once more.

#### **■** Setting Mode

• Press 2 to select:-

## Cooling Model

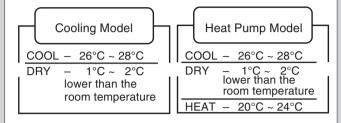
AUTO – Automatic Operation
COOL – Cooling Operation
DRY – Soft Dry Operation
FAN – Air Circulation Operation

# Heat Pump Model

AUTO – Automatic Operation
HEAT – Heating Operation
COOL – Cooling Operation
DRY – Soft Dry Operation

#### **■** Setting Temperature

- Press 3 to increase or decrease the temperature.
- The temperature can be set between 16°C ~ 30°C.
- · Recommended temperature:



• During AUTO Operation, press 3 to select:-



• Operation with 2°C higher than the standard temperature.

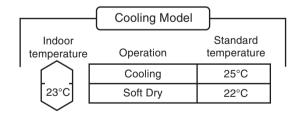


• Operation with the standard temperature.



 Operation with 2°C lower than the standard temperature.

#### Standard Temperature



- Once the Automatic Operation is selected, the indoor temperature sensor operates automatically to select the desired operation mode with Cooling or Soft Dry.
- After the operation mode has been selected, the mode does not change.

	Heat Pump Mode	el }
Indoor temperature	Operation	Standard temperature
	Cooling	25°C
23°C	Soft Dry	22°C
20°C	Heating	21°C

- At the beginning of the automatic operation, Heating, Cooling or Soft Dry is automatically selected according to the indoor temperature.
- The operation mode changes every hour, when necessary.

#### Setting the Fan Speed

• Press 4 to select:-

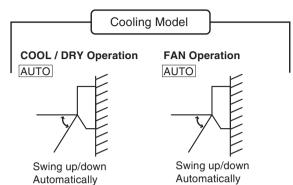
FAN — Low Fan Speed
FAN — Medium Fan Speed
FAN — High Fan Speed

AUTO

FAN - Automatic Fan Speed
The speed of the indoor fan is
adjusted automatically according to
the operation. The indoor fan stops
occasionally during cooling
operation.

#### ■ Setting the Vertical Airflow Direction

• Press 5 or 6 to select:-

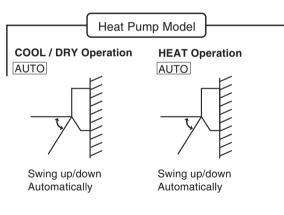


OFF

Press OFF button to stop the swinging of the louver at the desired airflow direction.

#### OFF

Press OFF button to stop the swinging of the louver at the desired airflow direction.



OFF

Press OFF button to stop the swinging of the louver at the desired airflow direction. OFF
Press OFF button to stop
the swinging of the louver
at the desired airflow
direction.

#### ■ Setting the Horizontal Airflow Direction



Use this air conditioner under the following conditions:

#### Cooling Model Unit in °C DBT: Dry Bulb Temp Indoor Outdoor WBT: Wet Bulb Temp DBT WBT DBT WBT Maximum Temperature 32 23 43 26 Minimum Temperature 16 11 16 11

_	Heat Pur	m	n Mod	d L			
Heat Pump Model							
	Unit in °C						
	DBT: Dry Bulb Temp		Indoor		Outdoor		
	WBT: Wet Bulb Temp		DBT	WBT	DBT	WBT	
	Maximum Temperature-Cooling (Maximum Temperature-Heating	1)	32 (30)	23 (-)	43 (24)	26 (18)	
	Minimum Temperature-Cooling (Minimum Temperature-Heating)	)	16 (16)	11 (-)	16 (-5)	11 (-6)	

#### Notes

- If the unit is not going to be used for an extended period of time, turn off the main power supply. If it is left at the ON position, approximately 2.5 W of electricity will be used even if the indoor unit has been turned off with the remote control.
- If operation is stopped, then restart immediately, the unit will resume operation only after 3 minutes.

#### Operation Details

#### **COOL – Cooling Operation**

 To set the room temperature at your preference cooling comfort.

#### **AUTO – Automatic Operation**

- Sense indoor temperature to select the optimum mode.
- Temperature is not displayed on the remote control during AUTO operation.

#### **DRY - Soft Dry Operation**

- A very gentle Cooling Operation, prior to dehumidification. It does not lower the room temperature.
- During Soft Dry operation, the indoor fan operates at Low fan speed.

#### **HEAT – Heating Operation**

(for Heat Pump Model only)

- Heat is obtained from outdoor air to warm up the room. When the outdoor ambient air temperature falls, the heating capacity of the unit might be reduced.
- Defrosting Operation
   Depend on the outdoor temperature, the operation occasionally stops to melt the frost on the outdoor unit.

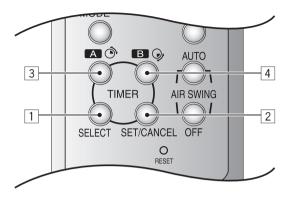
#### **FAN – Air Circulation Operation**

(for Cooling Model only)

 When the room temperature reaches the set temperature, operation commences at Low airflow volume. It stops when the room temperature drops to 2°C below the set temperature.
 (It is useful when using a heater.)

# **TIMER OPERATION**

To start and stop the air conditioner operation automatically.



#### **■** Delay OFF Timer

- For example, to stop the air conditioner after 5 hours.
- To select Delay OFF timer, press the 1 button once.
- Press 3 button to select delay hour.

#### ■ Delay ON Timer

- For example, to start the air conditioner after 2 hours.
- To select Delay ON timer, press the 1 button twice.
- Press 3 button to select delay hour.

# ■ Delay OFF and ON Timer

- For example, to stop the air conditioner after 3 hours and restart after 4 hours.
- To select Delay OFF & ON timer, press the 1 button 3 times.
- Press 3 button to select delay OFF timer & press 4 button to select delay ON timer.

## ■ Delay ON and OFF Timer

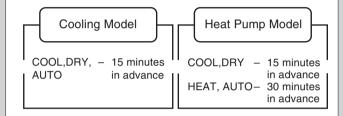
- For example, to start the air conditioner after 10 hours and restart after 7 hours.
- To select Delay ON & OFF timer, press the 1 button 4 times.
- Press 3 button to select delay ON timer & press 4 button to select delay OFF timer.

#### To Confirm Setting

 Press the 2 button once to activate the ON/OFF Delay hour operation, which will be activated after reaching the number of hours (1-12) that were set.

#### To Cancel Setting

- Press the 2 button to cancel the setting.
- Alternatively, pressing the OFF/ON button will also cancel the setting.
- Also, by pressing the 2 button, the previous setting will again be activated.



- Once the Delay ON/OFF Timer is set, operation will start at the set time everyday.
- The current time is not displayed when the timers are set.
- When both timers are used together, the TIMER mode indicator on the indoor unit remains lit even when the operation is stopped by the OFF-TIMER.

# **CARE AND MAINTENANCE**

# ■ Cleaning the Indoor Unit and Remote Control

- Wipe gently with a soft, dry cloth.
- Do not use water hotter than 40°C or polishing fluid to clean the unit.

# **■** Cleaning the Air Filter

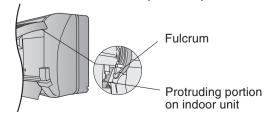
(Recommendation:- If the unit is operated in a dusty environment, clean the filters every two weeks, continuous use of this dirty filters will reduce cooling or heating efficiency.)

- 1 Remove dirt using a vacuum cleaner.
- 2 Wash back of the air filter with water.
- 3 If badly soiled, wash it with soap or a mild household detergent.
- **4** Let it dry and reinstall it. Be sure the "FRONT" mark is facing you.
  - X Damaged air filter.
    Consult the nearest authorized dealer.
    Part No.: CWD001050.
  - Do not use benzene, thinner, scouring powder or clothes soaked in caustic chemical to clean the unit.

## **■** Cleaning the Front Panel

(Must be removed before washing)

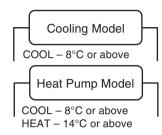
- **1** Raise the front panel higher than the horizontal and pull to remove it.
- **2** Gently wash with water and a sponge.
  - Do not press the front panel too hard when washing.
  - When use kitchen cleaning fluid (neutral detergent), rinse throughly.
  - Do not dry the front panel under direct sunlight.
- **3** To fix the front panel, raise the front panel horizontally, match the protruding portion on the indoor unit to the fulcrum and push into place.



# **■** Pre-season Inspection

#### • Is the discharged air cold/warm?

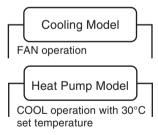
Operation is normal if 15 minutes after the start of operation, the difference between the air intake and outlet vents temperature is:-



- Are the air intake or outlet vents of the indoor or outdoor units obstructed?
- Are the remote control batteries weak?
   If the remote control display appears weak, replace the batteries.

# ■ When the Air Conditioner is Not Used for an Extended Period of Time

1 To dry the internal parts of the indoor unit, operate the unit for 2 - 3 hours using:-



- 2 Turn off the power supply and unplug.

  Note: If the unit is not switched off by the remote control, it will start operating when you plug in (because the unit is equipped with Random Restart Control).
- 3 Remove the remote control batteries.

## ■ Recommended Inspection

 After used over several seasons, the unit will become dirty and thus decreases the unit's performance. Depending on the operation conditions, a dirty unit may produce odour and dust may pollute dehumidification system. Therefore, a seasonal inspection is recommended in addition to regular cleaning. (Consult an authorized dealer.)

#### **HELPFUL INFORMATION**

#### ■ Auto Operation Button



#### Automatic Operation

- If the remote control fails to function or has been misplaced, press the Auto Operation button to start the Automatic operation.
- The Automatic operation will be activated immediately once the Auto operation button is pressed. However, temperature cannot be adjusted in this operation.
- The power indicator on the indoor unit will blink until the operation mode is selected automatically.
- To cancel this operation, press once more.

#### Remote Control Signal Receiving Sound

 To switch off the beep (Signal Receiving Sound), press the Auto Operation button for 10 seconds continuously or longer.

"Beep", "beep" sound will be heard at the tenth seconds.

Note: "Beep" sound will be heard at the fifth seconds:

However please press continuously until you heard "beep", "beep" sound.

 Repeat the above steps if you want to switch on the Signal Receiving Sound.

#### • (This is for Servicing purposes only)

Note: If you press this button continuously for 5 to 10 seconds, Test Run operation will be performed. A "beep" sound will be heard at the fifth seconds indicating the Test Run starts to operate.

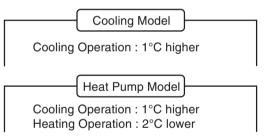
#### ■ Random Restart Control

- If power is resumed after a power failure, the operation will restart automatically after 3 - 4 minutes.
- Operation will be restarted automatically under the previous operation mode and airflow direction when power is resumed as the operation is not stopped by the remote control.

# ENERGY SAVING AND OPERATION HINTS

#### **■** Setting the Temperature

- Approximately 10% of electricity can be saved.
- Set the temperature higher or lower than the desired temperature.



#### Air Filters

- · Clean the air filters every 2 weeks.
- Dirty filters may reduces cooling or heating efficiency.

#### ■ Keep All Doors and Windows Closed

 Otherwise, cooling or heating performance will be reduced and electricity cost is wasted.

#### Outdoor Unit

• Do not block the air outlet vents. Otherwise, it will lower the cooling or heating performance.

#### ■ Avoid Direct Sunlight

 Keep curtains or drapes closed to avoid direct sunlight during cooling operation.

#### **TROUBLESHOOTING**

# ■ Normal Operation

Is it okay?

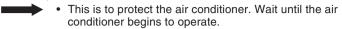
- Air conditioner has been restarted, but does not operate for 3 minutes.
- · A sound like water flowing can be heard.
- It seems that fog is coming out from the air conditioner.
- The room has a peculiar odour.
- During Automatic Vertical Airflow setting, indoor fan stops occasionally.
- · The outdoor unit emits water or steam.
- (For Heat Pump Model only)
   Operation stops for about 12 minutes during heating (The power indicator blinks).
- (For Heat Pump Model only)
   During heating operation, indoor fan may run at on and off conditions.

# **■** Abnormal Operation

Is it okay?

- The air conditioner does not operate.
- Air conditioner produces loud noise during operation.
- The air conditioner does not cool or warm effectively.
- Remote control / display doesn't work.

This is the answer



- This is the sound of refrigerant flowing inside the air conditioner.
- Condensation occurs when the airflow from the air conditioner cools the room.
- This may be a damp smell emitted by the wall, carpet, furniture or clothing in the room.
- This is to remove smell emitted by the surroundings.
  - In COOL/DRY operation, moisture in the air condenses into water on the cool surface of outdoor unit piping that causes dripping.
  - This is to melt the frost which has accumulated on the outdoor unit (defrosting operating). This will take no longer than about 12 minutes. Water drips from the outdoor unit. Wait until this operation ends. (the power indicator will light up).

    (Executivill accumulate on the outdoor unit when the

(Frost will accumulates on the outdoor unit when the outdoor temperature is low and humidity is high.)

• This is to prevent undesired cooling effect during heating operation.

Please check

- Has the circuit breaker been tripped?
- Has the power plug been removed from the wall outlet?
- Is the timer being used correctly?
- Is the installation work slanted?
- Is the front grille closed properly?
- Has the temperature been set incorrectly?
- Are the filters dirty?
- Are the intake or outlet vents of the outdoor unit obstructed?
- Are all windows and doors closed?
- Batteries empty?Batteries correctly inserted?

## ■ Call the Dealer Immediately

If the following conditions occur, turn off and unplug the main power supply, and then call the dealer immediately.

- Abnormal noise is heard during operation.
- Water or foreign material gets into the remote control by mistake.
- · Water leak from the indoor unit.
- · Switches or buttons do not operate properly.
- The circuit breaker switches off frequently.
- Power supply cord and plug become unusually warm.

